IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Kathryn E. Uhrich

Title:

POLYANHYDRIDES WITH THERAPEUTICALLY USEFUL DEGRADATION PRODUCTS

Docket No.:

1435.008US1

Filed: Examiner: March 8, 2000

Unknown

Serial No.: 09/508,217

Due Date: N/A

Group Art Unit: 1711

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

A return postcard. X

A Communication Concerning Related Applications (2 pgs.). X

An Information Disclosure Statement (2 pgs.), Form 1449 (9 pgs.), and copies of 156 cited documents. X

Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

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Name

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Amela 417 Luster

(GENERAL)

Examiner: Unknown

Group Art Unit: 1711

Docket: 1435.008US1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Serial No.: Kathryn E. Uhrich

09/508,217

Filed:

March 8, 2000

Title:

POLYANHYDRIDES WITH THERAPEUTICALLY USEFUL

DEGRADATION PRODUCTS

COMMUNICATION CONCERNING RELATED APPLICATION(S)

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Applicant would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

| Serial/Patent No | o. Filing Date | Attorney Docket | <u>Title</u> |
|-------------------------|--------------------|-----------------|--|
| 09/627,215 6,486,214 | July 27, 2000 | 1435.012US1 | POLYANHYDRIDE LINKERS FOR PRODUCTION OF DRUG POLYMERS AND DRUG POLYMER COMPOSITIONS PRODUCED THEREBY |
| 09/422,294 6,468,519 | October 21, 1999 | 1435.014US1 | POLYANHYDRIDES WITH BIOLOGICALLY ACTIVE DEGRADATION PRODUCTS |
| 09/917,194 6,689,350 | July 27, 2001 | 1435.017US1 | THERAPEUTIC POLYESTERS AND POLYAMIDES |
| 09/917,231 6,613,807 | July 27, 2001 | 1435.021US1 | THERAPEUTIC POLYANHYDRIDE COMPOUNDS FOR DRUG DELIVERY |
| 10/254,191 | September 24, 2002 | 1435.014US3 | POLYANHYDRIDES WITH BIOLOGICALLY ACTIVE DEGRADATION PRODUCTS |

COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: 09/508,217 Filing Date: March 8, 2000

Title: POLYANHYDRIDES WITH THERAPEUTICALLY USEFUL DEGRADATION PRODUCTS

10/273,244 October 17, 2002 1435.012US2 POLYANHYDRIDE LINKERS FOR PRODUCTION OF DRUG POLYMERS AND DRUG POLYMER COMPOSITIONS PRODUCED THEREBY

10/646,336 August 22, 2003 1435.021US2 THERAPEUTIC POLYANHYDRIDE COMPOUNDS FOR DRUG DELIVERY

10/753,048 January 6, 2004 1435.017US2 THERAPEUTIC POLYESTERS AND POLYAMIDES

Respectfully submitted,

KATHRYN E. UHRICH

By Applicant's Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938
Minneapolis, MN 55402
(612) 359-3265

Date 8-27-04 F

Robert J. Harris Reg. No. 37,346

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Annela M. LUSTER

Signature



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PARTY Applicant:

Kathryn E. Uhrich

Examiner:

Unknown

Serial No .:

09/508,217

Group Art Unit:

Unknown

Filed: Title:

March 08, 2000 POLYANHYDRIDES WITH THERAPEUTICALLY USEFUL DEGRADATION

Docket:

1435.008US1

PRODUCTS

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 et. seq., the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

Filing Date: March 08, 2000

Title: POLYANHYDRIDES WITH THERAPEUTICALLY USEFUL DEGRADATION PRODUCTS

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

KATHRYN E. UHRICH

By his Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938
Minneapolis, MN 55402
(612) 359-3265

Date 8-27-04

Robert J. Harris Reg. No. 37,346

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Name

Signature

The PTO dld not receive the following listed Item(s) Reference marked as (**)

PTO/SB/084/10-01)
Approved for use through 10/31/2002. OMB 551-0031
US Patenta Trademark Office: U.S. DEPARTMENT OF COMMERCE
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|--|----------------------|-----------------|
| | Application Number | 09/508,217 |
| STATEMENT BY APPLICANT Use as many sheets as necessary) | Filing Date | March 8, 2000 |
| | First Named Inventor | Uhrich, Kathryn |
| | Group Art Unit | 1711 |
| | Examiner Name | Unknown |
| | | |

Attorney Docket No: 1435.008US1 Sheet 1 of 9

| | | US PA | ATENT DOCUMENTS | S | | |
|--------------------|-----------------------------------|------------------|--|-------|----------|-------------------------------|
| Examiner Initial * | USP Document Number | Publication Date | Name of Patentee or Applicant of cited Document | Class | Subclass | Filing Date If Appropriate |
| | 2003/0035787A1 | 02/20/2003 | Uhrich, K. E. | 424 | 78.37 | 09/24/2002 |
| | 2003/0033767A1 2004/0038948A1 | 02/26/2004 | Uhrich, K. E. | 514 | 165 | 02/18/2003 |
| | 2004/0036346/K1 2004/0044125A1 | 03/04/2004 | Uhrich, K. E. | 525 | 54.1 | 08/25/2003 |
| | 2004/0096476A1 | 05/20/2004 | Uhrich, K. E., et al. | 424 | 426 | 07/17/2003 |
| | US-4,062,855 | 12/13/1977 | Allan, G. G., et al. | 260 | 295 PA | 09/27/1971 |
| | US-4,126,445 | 11/21/1978 | Allan, G. G., et al. | 71 | 94 | 05/10/1976 |
| | US-4,164,560 | 08/14/1979 | Folkman, Moses J., et al. | 424 | 22 | 01/05/1977 |
| | US-4,298,595 | 11/03/1981 | Parkinson, Thomas M., et al. | 424 | 78 | 11/29/1979 |
| | US-4,591,496 | 05/27/1986 | Cohen, Jonathan M., et al. | 424 | 15 | 01/16/1984 |
| | US-4,757,128 | 07/12/1988 | Domb, Abraham J., et al. | 528 | 271 | 08/01/1986 |
| | US-4,792,598 | 12/20/1988 | Ziegast, Gerd | 528 | 206 | 09/29/1986 |
| | US-4,857,311 | 08/15/1989 | Domb, Abraham J., et al. | 424 | 78 | 07/31/1987 |
| | US-4,868,274 | 09/19/1989 | Gupta, Balaram , et al. | 528 | 206 | 05/23/1988 |
| | US-4,886,870 | 12/12/1989 | D'Amore, Patricia, et al. | 528 | 271 | 02/15/1985 |
| | US-4,888,176 | 12/19/1989 | Langer, Robert S., et al. | 424 | 426 | 06/12/1987 |
| | US-4,891,225 | 01/02/1990 | Langer, Robert S., et al. | 424 | 428 | 01/21/1986 |
| | US-4,906,474 | 03/06/1990 | Langer, Robert S., et al. | 424 | 428 | 05/21/1984 |
| | US-4,916,204 | 04/10/1990 | Domb, Abraham J., et al. | 528 | 271 | 07/31/1987 |
| | US-4,997,904 | 03/05/1991 | Domb, Abraham J. | 528 | 206 | 08/25/1989 |
| | US-4,999,417 | 03/12/1991 | Domb, Abraham J. | 528 | 271 | 03/30/1989 |
| - | US-5,032,216 | 07/16/1991 | Felten, John J. | 156 | 628 | 08/29/1990 |
| | US-5,082,925 | 01/21/1992 | Shalaby, Shalaby W., et al. | 528 | 354 | 08/16/1990 |
| | US-5,160,745 | 11/03/1992 | DeLuca, Patrick P., et al. | 424 | 487 | 01/09/1990 |
| | US-5,175,235 | 12/29/1992 | Domb, Abraham J., et al. | 528 | 271 | 06/04/1990 |
| | US-5,259,968 | 11/09/1993 | Emert, Jacob, et al. | 252 | 51.5 A | 10/14/1992 |
| | US-5,264,540 | 11/23/1993 | Cooper, Kevin, et al. | 528 | 272 | 07/20/1992 |

EXAMINER

SEP 1 2004
Substitute or form 1449A/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Substitute or form 1449A/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT Under the Paperwork Reduction Act of 1995, no persons are required to respond to a colle Complete if Known 09/508,217 **Application Number** March 8, 2000 Filing Date Uhrich, Kathryn **First Named Inventor Group Art Unit** 1711 Unknown **Examiner Name** Attorney Docket No: 1435.008US1 Sheet 2 of 9

| | US-5,290,494 | 03/01/1994 | Coombes, Allan G., et al. | 264 | 41 | 07/16/1992 |
|-------------|--------------|------------|-----------------------------|-----|-------------|------------|
| | US-5,317,079 | 05/31/1994 | Domb, Abraham J., et al. | 528 | 271 | 09/18/1992 |
| | US-5,364,725 | 11/15/1994 | Wilson, John C., et al. | 430 | 108.4 | 03/15/1993 |
| | US-5,498,729 | 03/12/1996 | Domb, Abraham J. | 548 | 500 | 02/22/1993 |
| | US-5,512,131 | 04/30/1996 | Kumar, Amit, et al. | 156 | 655.1 | 10/04/1993 |
| | US-5,514,764 | 05/07/1996 | Fretchet, Jean M., et al. | 528 | 10 | 01/01/1995 |
| | US-5,518,730 | 05/21/1996 | Fuisz, Richard C. | 424 | 426 | 06/03/1992 |
| | US-5,545,409 | 08/13/1996 | Laurencin, Cato T., et al. | 424 | 426 | 04/05/1994 |
| | US-5,629,009 | 05/13/1997 | Laurencin, Cato T., et al. | 424 | 426 | 08/07/1996 |
| | US-5,721,131 | 02/24/1998 | Rudolph, Alan S., et al. | 435 | 240.24 3 | 04/28/1994 |
| | US-5,776,748 | 07/01/1998 | Singhvi, Rahul , et al. | 435 | 180 | 06/06/1996 |
| | US-5,798,115 | 08/25/1998 | Santerre, Paul J., et al. | 424 | 423 | 02/13/1997 |
| | US-5,837,278 | 11/17/1998 | Geistlich, Peter, et al. | 424 | 444 | 01/04/1995 |
| | US-5,891,477 | 04/06/1999 | Lanza, Robert P., et al. | 424 | 501 | 03/28/1997 |
| | US-5,902,599 | 05/11/1999 | Anseth, Kristi S., et al. | 424 | 426 | 02/20/1996 |
| | US-5,937,758 | 08/01/1999 | Maracas, George N., et al. | 101 | 327 | 11/26/1997 |
| - | US-5,958,911 | 09/28/1999 | Evans, R. T., et al. | 514 | 166 | 11/04/1997 |
| | US-5,969,020 | 10/19/1999 | Shalaby, Shalaby W., et al. | 524 | 167 | 02/06/1998 |
| | US-6,123,956 | 09/26/2000 | Baker, Keith, et al. | 424 | 426 | 07/09/1998 |
| | US-6,153,212 | 11/28/2000 | Mao, Hai-quan , et al. | 424 | 426 | 10/02/1998 |
| | US-6,171,610 | 01/09/2001 | Vacanti, Charles A., et al. | 424 | 426 | 11/25/1998 |
| | US-6,280,772 | 08/28/2001 | Pinkus, Alvin G. | 424 | 486 | 12/28/1998 |
| | US-6,365,149 | 04/02/2002 | Vyakarnam, M. N., et al. | 424 | 93.1 | 12/19/2000 |
| | US-6,468,519 | 10/22/2002 | Uhrich, Kathryn E. | 424 | 78.01 | 10/21/1999 |
| | US-6,486,214 | 11/26/2002 | Uhrich, Kathryn E. | 514 | 772.5 | 07/27/2000 |
| - | US-6,602,915 | 08/05/2003 | Uhrich, K. E. | 514 | 772.2 | 07/27/2004 |
| | US-6,613,807 | 09/02/2003 | Uhrich, K. E. | 514 | 772.5 | 07/27/2001 |
| | US-6,685,928 | 02/03/2004 | Uhrich, K. E., et al. | 424 | 78.17 | 12/07/2000 |
| | US-6,689,350 | 02/10/2004 | Uhrich, K. E. | 424 | 78.17 | 07/27/2001 |

EXAMINER

PTO/SB/08A(10-01)
Approved for use through 103/1/2002. OMB 651-0031
US Patent & Tradement Office: U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE Complete if Known 09/508,217 **Application Number** March 8, 2000 **Filing Date** Uhrich, Kathryn **First Named Inventor** 1711 **Group Art Unit** Unknown **Examiner Name** Attorney Docket No: 1435.008US1 Sheet 3 of 9

| | | FOREIGN PATEN | T DOCUMENTS | | | |
|--------------------|---------------------------------------|------------------|---|-----------|----------|----------------|
| Examiner Initials* | Foreign Document No | Publication Date | Name of Patentee or Applicant of cited Document | Class | Subclass | T ² |
| | AU-750424 | 03/06/2003 | Uhrich, K. | C08 G | 063/00 | |
| | CA-2393676 | 07/06/2002 | Uhrich, K., et al. | A61K | 3/00 | |
| | DE-0288387 (with English Abstract) | 03/28/1991 | Pinther, Peter , et al. | C 08 G | 67/04 | |
| • | DE-288311 (with English Abstract) | 03/28/1991 | Schulz, Volker , et al. | A01N | 25/10 | |
| | EP-0246341 | 11/25/1987 | D'Amore, Patricia , et al. | A61L | 27/00 | |
| , | EP-0498283 ≺ | 08/12/1992 | White, Dwain M., et al. | C08 G | 67/04 | |
| | JP-6255797 (with English Abstract) | 12/17/1985 | Shibazaki, Masakatsu , et al. | C07F | 7/18 | |
| , | NL-9000237 (with English Abstract) | 08/16/1991 | Enno, Franciscus H. | A61K | 31/60 | |
| , - | WO-00/66730A1 | 11/09/2000 | Yurchenco, Peter | C12 N | 15/12 | |
| | WO-01/28492 | 04/26/2001 | Uhrich, Kathryn E. | A61K | | |
| | WO-01/41753A2 | 06/14/2001 | Uhrich, K. | A61K | 31/00 | |
| | WO-02/09767 | 02/07/2002 | Uhrich, Kathryn E., et al. | A61K | 47/48 | |
| | WO-02/09768 | 02/07/2002 | Uhrich, Kathryn E. | A61K | 47/48 | |
| | WO-02/09769 | 02/07/2002 | Uhrich, Kathryn E. | A61K | 47/48 | |
| | WO-91/09831 | 07/11/1991 | Domb, Abraham J. | C07 | 69/035 | |
| | WO-97/39738 | 10/30/1997 | Ignatious, Francis, et al. | A61K | 9/16 | |
| | WO-97/44016A1 | 11/27/1997 | Lee, J., et al. | A61K | 9/22 | |
| | WO-98/36013 | 08/20/1998 | Kohn, Joachim B., et al. | C08 G | 64/00 | |
| | WO-99/29885 | 06/17/1999 | Koch, Rainhard , et al. | C12P | 1/00 | |
| | WO-99/36107 | 07/22/1999 | Shakesheff, Kevin, et al. | A61L | 31/00 | |
| | WO-97/49385 | 12/31/1997 | Santos, Camilla A., et al. | A61K | 9/16 | |

| | OTHER | R DOCUMENTS NON PATENT LITERATURE DOCUMENTS | |
|-----------------------|-------------------------|---|----|
| Examiner Initials* | Cite No ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T² |
| | • | "Polyanhydrides with Therapeutically Useful Degradation Products", <u>US Patent Application Ser. No. 09/508,217, filed March 8, 2000,</u> 1-26 | |
| | , | "Polyanhydrides with Therapeutically Useful Degradation Products to Promote Healing of Bone and Soft Tissue", PCT Application PCT/US98/18816, 27 Pages | |

EXAMINER

PTC/S8/084(10.01)
Approved for use through 10/31/2002, OMB 651-0031
US Patent & Trademark Office. U.S. DEPARTMENT OF COMMERCE
on of information unless it contains a valid OMB contrain number

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Sheet 4 of 9

| Application Number | 09/508,217 | |
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| Filing Date | March 8, 2000 | |
| First Named Inventor | Uhrich, Kathryn | |
| Group Art Unit | 1711 | |
| Examiner Name | Unknown | |

Attorney Docket No: 1435.008US1

| Examiner | Cite | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Item | T² |
|-----------|------|---|-----|
| Initials* | No 1 | (book, magazine, journal, serial, symposlum, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | |
| | | "Polyannydrides with Therapeutically Useful Degradation Products to Promote | |
| | | Healing of Bone and Soft Tissue", U.S. Patent Application Ser. No. 09/455,861, | |
| | | filed Dec. 7, 1999, converted on Dec. 11, 2000 to Provisional Application Ser. | |
| | | No. 60/304.190, 25 Pages | ļ |
| | | AEBISCHER, P, et al., "Basic fibroblast growth factor released from synthetic | |
| | ļ | guidance channels facilitates peripheral nerve regeneration across long nerve | 1 |
| | | gaps", Journal of Neuroscience Research, 23(3), (July 1989),282-9 | ļ |
| | | ANASTASIOU, THEODORE J., "Novel Polyanhydrides with Enhanced Thermal | |
| | | and Solubility Properties", Macromolecules, 33 (17), (2000),6217-6221 | |
| | | ANASTASIOU. THEODORE J., "Novel, Degradable Polyanhydrides", <u>25th</u> | |
| | | Annual Meeting Transactions of the Society for Biomaterials, Abstract,(1999),79 | - |
| | | ANASTASIOU THEODORE J "Synthesis of Novel, Degradable | |
| | | Polyanhydrides Containing Para-Aminosalicylic Acid as Drug Delivery Devices | 4 |
| | | for Tuberculosis Treatment", Polymer Preprints, 41(2), (August 2000),1366-1367 | |
| • | | ATTAWIA, MOHAMED A., "Biocompatibility Testing of Poly(anhydride-co- | |
| | | imides) Containing Pyromellitylimidoalanine", The 21st Annual Meeting of the | |
| | | Society for Biomaterials, Abstract,(April 5-9, 1994),222 | _ |
| | | ATTAWIA: MOHAMED A., "Cytotoxicity testing of poly(anhydride-co-imides) for | 1 |
| | | orthopedic applications", Journal of Biomedical Materials Research, 29(10), | |
| | | (1995) 1233-1240 | |
| | | ATTAWIA, MOHAMED A., "In vitro bone biocompatibility of poly (anhydride-co- | |
| | | imides) containing pyromellitylimidoalanine", Journal of Orthopedic Research, | Ì |
| | , | 14(3) (1996) 445-454 | _ |
| | | ATTAWIA, MOHAMED A., "Proliferation, Morphology, and Protein Expression | |
| | ï | by Osteoblasts Cultured on Poly(anhydride-co-amides)", Journal of Biomedical | |
| | | Materials Research, 48(3), (1999),322-327 | _ _ |
| | | ATTAWIA MOHAMED A "The Long Term Osteoblast Response to | |
| | | Poly(anhydride-co-imides): A New Degradable Polymer for Use in Bone", | - |
| | | Proceedings of the Fifth World Biomaterials Congress, Toronto, Canada, | |
| | | (1996).113 | _ |
| | | BEATON, MICHAEL L., "Synthesis of a novel poly(anhydride-ester)", The | |
| | | Rutgers Scholar - An Electronic Bulletin of Undergraduate Research, Volume 3, | |
| | | http://www.scils.rutgers.edu/~weyang/ejournal/volume03/beatuhri/beatuhri.htm,(| 1 |
| | | 2001).1-7 | _ |
| | , | BEDELL, CHRISTL, "Processing and Hydrolytic Degradation of Aromatic, | |
| | | Ortho-Substituted Polyanhydrides", Journal of Applied Polymer Science, 80, | |
| | | (2001) 32-38 | |
| | | BRAMBLEY, D, et al., "Microlithography: an overview", Advanced Materials for | |
| | | Optics and Electronics, 4(2), (March-April 1994),55-74 | 1 |
| | | | |

EXAMINER

Substitute for form 1449A/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use as many sheets as necessary)

Sheet 5 of 9

| ider the Paperwork Reduction Act of 1995, no persons are | equired to respond to a collection of information unless it contains a valid OMB control number |
|--|---|
| Complete if Known | |
| Application Number | 09/508,217 |
| Filing Date | March 8, 2000 |
| First Named Inventor | Uhrich, Kathryn |
| Group Art Unit | 1711 |
| Examiner Name | Unknown |
| Att Desirat No. 4 | 425 0001164 |

| Examiner | | | T² |
|---------------|--------------|---|-----------|
| Initials* | Cite No 1 | (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volunte-assue number(s), publisher, city and/or country where published. | |
| | | BRANCH D.W. "Microstamp patterns of biomolecules for high-resolution | |
| | | neuronal networks", Medical & Biological Engineering & Computing, 36(1), | |
| | | (January 1998) 135-41 | |
| | | BROWN, JOSEPH P., "A Polymeric Drug for Treatment of Inflammatory Bowel | |
| | | Disease", Journal of Medicinal Chemistry, 26(9), (1983),1300-1307 | |
| | | BROWN, L, et al., "Transdermal delivery of drugs", Annual Review of Medicine, | |
| | | 39, (1988),221-9 | |
| | | CAMPO, CHERYL J., "Polyanhydrides: the effects of ring substitution changes | |
| | | CAMPO, CHERTES., Polyanity Unides. the cheete of thing control of the control of | |
| | | on polymer properties", Polymer Bulletin, 42, (1999),61-68 | _ |
| | | CHAFI, N., "Dosage Form with Salicylic Acid Attached to the Polyanhydride | |
| | | Polymer Dispersed in an Eudragit Matrix", International Journal of | |
| | | Pharmaceutics, 52, (1989),203-211 | |
| | | CHEN, G, "Effect of protein and cell behavior on pattern-grafted | |
| | | thermoresponsive polymer", <u>Journal of Biomedical Materials Research</u> , 42(1), | |
| | | (October 1998),8-44 | - |
| | | CONIX, ANDRE, "Aromatic Polyanhydrides, a New Class of High Melting Fiber- | |
| | | Forming Polymers" .lournal of Polymer Science, XXIX, (1958),343-353 | _ |
| | 1 | CONIX, ANDRE, "New High-Melting Fibre-Forming Polymers", <u>Die</u> | |
| | | Makromolekulare Chemie, XXIV. (1957),76-78 | |
| | | CONIX, ANDRE, "Poly [1,3-bis (p carboxyphenoxy) - Propane anhydride]", | |
| | | Macromolecular Synthesis, 2, (1996),95-99 | _ |
| | | DAVARAN SOODARFH "Release of 5-amino Salicylic Acid from Acrylic Type | |
| | | Polymeric Prodrugs Designed for Colon-specific Drug Delivery", <u>Journal of</u> | |
| | | Controlled Release, 58(3), (1999),279-287 | L |
| | + | DAVIES M.C. "The Analysis of the Surface Chemical Structure of Biomedical | |
| | | Aliphatic Polyanhydrides Using SPX and ToF-SIMS", Journal of Applied Polymer | |
| | | Science, 42 (1991) March 20, No. 6, New York, US, (March 20, 1991),1597- | |
| | | 1605 | |
| | <u> </u> | DELAMARCHE, EMMANUEL, et al., "Patterned delivery of immunoglobulins to | |
| | | surfaces using microfluidic networks", Science, 276(5313), (May 2, 1997),779- | |
| | | 781 | |
| - | | DEWEZ, J. L., et al., "Adhesion of mammalian cells to polymer surfaces: from | Γ |
| | | physical chemistry of surfaces to selective adhesion on defined patterns", | |
| | 1 | Biomaterials, 19(16), (August 1998),1441-1445 | |
| | | DOMB, A J., "Polyanhydrides. I. Preparation of High Molecular Weight | T |
| | 1 | Polyanhydrides", <u>Journal of Polymer Science</u> : Part A: Polymer Chemistry, Vol. | |
| | | Polyannyarides", Journal of Polymer Science. Part A. 1 Glymer Sciences, 1997 | |
| | | 25, (1987),pgs. 3373-3386 | \dagger |
| | | DOMB, ABRAHAM J., "Synthesis and Characterization of Biodegradable | |
| | | Aromatic Anhydride Copolymers", Macromolecules, 25, (1992),12-17 | ╁╴ |
| | | DONTHA, N, "Generation of biotin/avidin/enzyme nanostructures with maskless | |
| | | photolithography", Analytical Chemistry, 69(14), (July 15, 1997),2619-25 | <u></u> |

EXAMINER

INFORMATION DISCLOSURE STATEMENT BY APPLICANT was a seen as necessary) PTO/SB/08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patent & Tratement Office: U.S. DEPARTMENT OF COMMERCE
Under the Peperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| Complete if Known Complete if Known 09/508,217 **Application Number** March 8, 2000 **Filing Date** Uhrich, Kathryn **First Named Inventor Group Art Unit** 1711 Unknown **Examiner Name** Attorney Docket No: 1435.008US1 Sheet 6 of 9

| | OTHE | R DOCUMENTS NON PATENT LITERATURE DOCUMENTS | |
|-----------------------|--------------|--|----|
| Examiner Initials* | Cite No 1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the letters (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), unblisher, city and/or country where published. | T² |
| | | DUKOVIC, GORDANA, "Novel degradable poly(anhydride-esters) for controlled drug release", The Rutgers Scholar - An Electronic Bulletin of Undergraduate | |
| | | Research, 1, http://www.scils.rutgers.edu/~weyang/ejournal/volume01/uhriduko/uhriduko.htm , (1999), 1-10 | |
| | | ERDMANN, LAURA, "Chapter 5: Polymeric Prodrugs: Novel Polymers with | |
| | | Systems, I. McCulloch, et al., (Editors), ACS Symposium Series 709, American Chamical Society: Washington, D.C. (1998),83-91 | _ |
| | , , | ERDMANN, LAURA, "Degradable poly(anhydride ester) implants: effects of localized salicylic acid release on bone", Biomaterials, 21(24), (2000),2507-2512 | |
| | * | ERDMANN, LAURA, "Polymer Prodrugs with Phamaceutically Active Degradation Products", Polymer Preprints, 38(2), (1997),570-571 ERDMANN, LAURA, et al., "Polymer Prodrugs with Pharmaceutically Active Prodrugs William Prodrugs with Pharmaceutically Active Prodrugs William Prodr | |
| | | Degreadation Products", Dept. of Chemistry, Rutgers University, Piscalaway, NJ | |
| | | ERDMANN, LAURA, "Polymeric Prodrugs: Novel Polymers for Delivery of Salicylic Acid", Annals of Biomedical Engineering, 26 (Suppl. 1), Abstract No. | |
| | | ERDMANN, LAURA, et al., "Polymeric Prodrugs: Novel Polymers with Bioactive Components", ACS SYMPOSIUM SERIES, VOL 709, Conference: Tailored polymeric materials for controlled delivery systems- Symposium, Development from a symposium sponsored by the Division of Polymer Chemistry at the 214th National Meeting of the American Chemical Society, Las Vegas, Nevada, | |
| | | September 7-11, 1997,(1998),83-91 ERDMANN, LAURA, "Polymeric Salicylic Acid: In Vitro and In Vivo Degradation", Polymer Preprints, 39(2), (1998),224-225 | |
| | | ERDMANN, LAURA, "Synthesis and degradation characteristics of salicylic acid-derived poly(anhydrid-esters)", <u>Biomaterials</u> , 21(19), (October 2000),1941-1946 | |
| | | GIAMMONA, G., "Polymeric Prodrugs alpha beta poly-hyroxyethyl-d1-aspartamide as macromolecular carrier for some non-steroidal anti-inflammatory agents", Abstract from Database BIOSIS Online, Biosciences Information Service, Philadelphia, PA, Original Publication from the International Journal of Pharmaceutics (Amsterdam),(1989),1 page | |
| | | GIAMMONA, G., "Polymeric Prodrugs Alpha Beta Poly-N-hydroxyetnyl-DL-aspartamide as a Macromolecular Carrier for Some Non-Steroidal Anti-inflammatory Agents". International Journal of Pharmaceutics, 57, (1989),55-62 | |
| | | GOUIN, S, et al., "New Polyanhyudrides Made from a Bile Acid Dimer and Sebacic Acid: Synthesis, Characterization and Degradation", Macromolecules, 33, (2000),5379-5383 | |

EXAMINER

Substitute for form 1449A/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
The asymany sheets as necessary)

| der the Paperwork Reduction Act of 1995, no persons are | required to respond to a collection of information unless it contains a valid OMB control number |
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| Complete if Known | |
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| Group Art Unit | 1711 |
| Examiner Name | Unknown |
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Sheet 7 of 9 Attorney Docket No: 1435.008US1

| | OTHE | R DOCUMENTS NON PATENT LITERATURE DOCUMENTS | |
|-----------------------|--------------|---|--------------|
| Examiner Initials* | Cite No 1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T² |
| | | HERBERT, C B., "Micropatterning gradients and controlling surface densities of | |
| | | photoactivatable biomolecules on self-assembled monolayers of oligo(ethylene | |
| | | glycol) alkanethiolates", Chemistry & Biology, 4(10), (October 1997),731-7 | |
| , | | IBIM, S., "Controlled Release Based on Poly(anhydride-co-imides)", Proc. | |
| | | Intern. Symp. Control. Rel. Bioact. Mater., 22, (1995),2 pgs. | ļ |
| | | IBIM, S M., "Poly(anhydride-co-imides): In Vivo Biocompatibility in a rat model", | |
| | | Biomaterials, 19(10), (1998),941-951 | |
| | | IBIM, S E., "Preliminary in vivo report on the osteocompatibility of | |
| | | poly(anhydride-co-imides) evaluated in a tibial model.", <u>Journal of Biomedical</u> | |
| | | Material Research, 43(4), (Winter 1998),374-379 | |
| | | ITO, Y, "Micropatterned immobilization of epidermal growth factor to regulate | |
| | | cell function", Bioconjugate Chemistry, 9(2), (March-April 1998),277-82 | <u> </u> |
| | | JAMES, C D., "Patterned Protein Layers on Solid Substrates by Thin Stamp | |
| | | Microcontact Printing", Langmuir; 14(4), (1998),741-744 | <u> </u> |
| | | JIANG, H. L., "Synthesis, Characterization and In Vitro Degradation of a New | |
| | | Family of Alternate Poly(ester-anhydrides) Based on Aliphatic and Aromatic | |
| | | Diacids", Biomaterials, 22(3), (2001),211-218 | - |
| | | JUCKER, M, et al., "Fetal rat septal cells adhere to and extend processes on | |
| - 00 | | basement membrane, laminin, and a synthetic peptide from the laminin A chain | |
| | | sequence", <u>Journal of Neuroscience Research</u> , 28(4), (April 1991),507-17 KLEINFELD, D, "Controlled outgrowth of dissociated neurons on patterned | <u> </u> |
| | | substrates", <u>Journal of Neuroscience</u> , 8(11), (November 1998),4098-120 | |
| | | KROGH-JESPERSEN, E, "Synthesis of a Novel Aromatic Polyanhydride | |
| | | Containing Aminosalicylic Acid", Polymer Preprints, 41 (1), (2000),1048-1049 | |
| | | LANGER, ROBERT, "New Methods of Drug Delivery", Science, 249(4976), | |
| | | (September 1990),1527-1533 | |
| | | LAURENCIN, C T., "Poly(andrides-co-imides): In Vivo Biocompatibility Study", | |
| | | 23rd Annual Meeting of the Society for Biomaterials, New Orleans, LA, | |
| | | (1997),483 | |
| ~ | | LAURENCIN, C.T., "The Biocompatibility of Poly(anhydride-co-imides): High | 1 |
| | | Strength Polymers for Controlled Drug Delivery", Proc. 24th Int'l Symp. Control. | |
| | | Rel. Bioact. Mater., (1997),973-974 | |
| | | LAURENCIN, C T., "The Bone Biocompatibility of Poly(anhydride-co-imides) - A | |
| | | new generation degradable Polymer for Orthopedic Applications", 41st Annual | |
| | | Meeting of the Orthopedic Research Society, Orlando, FL, (1995),143-24 | |
| | | LONGER, MARK A., "Sustained-Release Drug Delivery Systems", Remington's | |
| | | Pharmaceutical Sciences, 18th Edition, Chapter 91, (1990),1676-1693 | |
| | | MACEDO, B, et al., "The in vivo Responce to a Bioactive Biodegradable | İ |
| | | Polymer", Journal of Dental Research, 78, Abstract No. 2827,(1999),459 | |
| | , | MACEDO, B, "the In Vivo Response to Bioactive Polyanhydride Monofilament", | |
| | | Journal of Dental Research, 79 (Abstract No. 3872), (2000),627 | |

EXAMINER

Substitute for form 1449A/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
LEVER'S many sheets as necessary) Complete if Known 09/508,217 **Application Number** March 8, 2000 **Filing Date First Named Inventor** Uhrich, Kathryn 1711 **Group Art Unit** Unknown **Examiner Name** Attorney Docket No: 1435.008US1 Sheet 8 of 9

| | OTHER | R DOCUMENTS NON PATENT LITERATURE DOCUMENTS | |
|--------------------|-------------------------|---|---------|
| Examiner Initials* | Cite No ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T² |
| | / | PINTHER, P., "Synthesis of Polyanhydrides Containing Ester Groups", Die | |
| | | Makromolekulare Chemie, Rapid Communications, 11(8), (August 1990),403- | |
| | | 408 | |
| | | SCHACHT, E., "Polymers for Colon Specific Drug Delivery", Journal of | į |
| | | Controlled Release, 39, (1996),327-338 | |
| | | SCHMALENBERG, K, "Microlithographic patterning of polymer substrates for | |
| | | directed neuronal", Polymeric Materials Science Engineering, 81, Fall Meeting, | |
| | 6 | August 22 - 26, 1999, New Orleans, LA,(1999),97 | |
| | | SCHMALENBERG, K, "Patterned Polymer Substrates for directing Neuronal | |
| | | Growth", ACS Regional Mid-Atlantic Research Meeting, (1999), | |
| | | SCHMALENBERG, K, "Patterning of polymer substrates for directed neuronal | |
| | ′ | growth studies", Laboratory for Surface Modification, (March 18, 1999), | |
| | | SCHMALENBERG, K, "Thin Stamp Microcontact Patterned Printing of Protein | |
| | | Layers on Polymer Substrates", Transactions: Twenty-Fifth Annual Meeting of | |
| | • | the Society for Biomaterials, April 28-May 2, 1999, (April 28-May 2, 1999), | İ |
| | | SEIDEL, J O., "Erosion of Poly(anhydride-co-imides): A Preliminary Mechanistic | |
| | | Study", J. Appl. Polym. Sci., 62(8), (1996),1277-1283 | |
| | | SHEN, E, "Morphological Characterization of Erodible Polymer Carriers for | |
| | | Drug Release", Proc. 26th Int'l Symp. Control. Rel. Bioact. Mater., (1999),717- | |
| | | 718 | |
| | • | SPARGO, B. J., et al., "Spatially controlled adhesion, spreading, and | |
| | | differentiation of endothelial cells on self-assembled molecular monolayers", | |
| | | Proceedings of the Natational Academy of Science USA, 91(23), (November 8, | |
| | | 1994),11070-11074 | |
| | | ST. JOHN, P M., "Diffraction-based cell detection using a microcontact printed | |
| | | antibody grating", Analytical Chemistry, 70(6), (March 15, 1998),1108-11 | |
| | | TASHIRO, K, et al., "A synthetic peptide containing the IKVAV sequence from | |
| | | the A chain of laminin mediates cell attachment, migration, and neurite | |
| | | outgrowth", Journal of Biological Chemistry, 264(27), (September 25, | |
| | | 1989),16174-82 | |
| | | UHRICH, K E., "Chemical Changes during in vivo degradation of | |
| | | poly(anhydride-imide) matrices", Biomaterials, 19(22), (1998),2045-2050 | |
| | | UHRICH, K E., "Degradation of poly(anhydride-co-imides): Novel Polymers for | |
| | | Orthopedic Applications", Mat. Res. Soc. Symp. Proc., 394, (1995),41-46 | |
| | | UHRICH, K E., "In Vitro Degradation Characteristics of Poly(anhydride-imides) | |
| | * | Containing Pyromellitylimidoalanine", <u>J. Appl. Polymer Sci., Part A, Polym.</u> | |
| | | <u>Chem., 34 (7),</u> (1996),1261-1269 | |
| | | UHRICH, K E., "In Vitro Degradation Characteristics of Poly(anhydride-imides) | |
| | | Containing trimellitylimidoglycine", <u>J. Appl. Polymer. Sci., 63 (11)</u> , (1997),1401- | |
| | | 1411 | |
| L | | | <u></u> |

EXAMINER

PTO/SB/08A(10-01)
Approved for use through 10/31/2002, OMB 651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

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| | OTHER | R DOCUMENTS NON PATENT LITERATURE DOCUMENTS | |
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| | | UHRICH, K E., "Poly(anhydride-ester) Degradation: Mechanical Changes and | |
| | | Correlation to Antibiotic Release", American Chemical Society, Abstracts of | |
| | | Papers, Part 2, Abstract No. 121, 221st ACS National Meeting, San Diego, | |
| | | CA,(2001),Abstract 121 | |
| | | UHRICH, K E., "Synthesis and Characterization of Degradable poly(anhydride- | |
| | | co-imides)", Macromolecules, 28 (7), (1995),2184-2193 | |
| | | UHRICH, K E., "Synthesis and Characterization of poly(anhydride-co-imides): | |
| | | Solution Polycondensation of Biodegradable Polymers Derived from Amino | |
| | | Acids", Proc. of the American Chemical Society, Division of Polymeric Materials: | |
| | 9 | Science and Engineering, 70, Spring Meeting, San Diego, CA,(1994),239-240 | |
| | | UHRICH, K E., "Synthesis of Aminosalicylate-based polyanhydride Prodrugs: | |
| | | Esters, Amides, and Azos", American Chemical Society, Abstracts of Papers, | |
| | | Part 2, Abstract No. 407, 222nd ACS National Meeting, Chicago, | |
| | | IL,(2001),Abstract 407 | |
| | | WOO, G L., "Biological Characterization of a Novel Biodegradable Antimicrobial | |
| | | Polymer Synthesized with Fluoroquinolones", <u>J Biomed Mater Res. 59</u> , | |
| | | (2002),pgs. 35-45 | |

EXAMINER DATE CONSIDERED